

Application No.: 10/720,168
Response Under 37 C.F.R. §1.111 dated July 27, 2004
Response to the Office Action dated April 27, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-4 (Canceled)

Claim 5 (Currently Amended): A clutch changeover method for changing over speed-changeable clutches in a change-speed apparatus having a direct coupling clutch and a change-speed speed-up or speed-down clutch which are disposed on a movable element which is movable along an axial direction of an input shaft or an output shaft and is meshed with a carrier of a composite planetary gear device in such a manner as not to rotate relative to said carrier and is provided concentrically with an said input shaft or an said output shaft to which power is transmitted of a power transmission path of a speed-changeable clutch with the composite planetary gear device, said movable element being adapted to move along an axial direction of said input shaft or said output shaft, and an elastic body and an actuator both for changing over a state between engagement and disengagement of said direct coupling clutch or said ~~change-speed~~ speed-up or speed-down clutch, said elastic body and said actuator being disposed such that operating directions of said elastic body and said actuator are opposed to each other in the axial direction, said clutch changeover method comprising the steps of:

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keeping one of said direct coupling clutch and said ~~change-speed~~ speed-up or speed-down clutch in engagement by normally moving said movable element in one direction by virtue of a biasing force of said elastic body; and

changing over the engagement of said clutches from said one clutch to the other clutch by moving said movable element against the biasing force of said elastic body by activating said actuator.

Claim 6 (Currently Amended): The clutch changeover method according to claim 5, wherein one of said direct coupling clutch and said ~~change-speed~~ speed-up or speed-down clutch is kept in engagement by normally moving said movable element in one direction by virtue of a biasing force of said elastic body, and

wherein the engagement of said one clutch is released by moving said movable element against the biasing force of said elastic body while bringing the other clutch into engagement by activating said actuator.

Claim 7 (Currently Amended): The clutch changeover method according to claim 5, wherein one of said direct coupling clutch and said ~~change-speed~~ speed-up or speed-down clutch is kept in engagement by normally moving said movable element in one direction by virtue of a biasing force of said elastic body, and

wherein said other clutch is brought into engagement after the engagement of said one

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clutch has been released by moving said movable element in the other direction against the biasing force of said elastic body by actuating said actuator.

Claim 8 (New): A clutch changeover method for a vehicle front and rear wheels drive system having a speed-changeable change-speed apparatus disposed along a power transmission path extended from primary drive wheels to secondary drive wheels, said change-speed apparatus having a composite planetary gear device provided in a casing fixed to a vehicle body, comprising the steps of:

preparing changeover clutch discs for, respectively, a direct coupling clutch and a speed-up or speed-down clutch disposed on a moveable element provided concentrically with an input shaft or an output shaft of said change-speed apparatus to which power is transmitted from said primary drive wheels, said movable element being adapted to move along an axial direction of said input shaft or said output shaft and meshing with a carrier of said composite planetary gear device in such a manner as not to rotate relative to said carrier;

preparing an elastic body and an actuator both for changing over a state between engagement and disengagement of said direct coupling clutch or said speed-up or speed-down clutch, said elastic body and said actuator being disposed such that operating directions of said elastic body and said actuator are opposed to each other in the axial direction;

moving said movable element by virtue of a biasing force thereof; and

bringing one of said direct coupling clutch or said speed-up or speed-down clutch into

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engagement by said elastic body, wherein

said actuator includes a changeable change-speed apparatus which changes over the engagement of said clutches from the engagement of said one clutch to the engagement of the other clutch by moving said moveable element against the biasing force of said elastic body by virtue of a thrust of the actuator.